

Listing of Claims

Claims 1-16: canceled

17. (currently amended): A method of bonding a bond metal sheet substantially comprising a bonding material directly to a base metal sheet without an intervening bonding material, the method comprising the steps of:

~~placing the bond metal sheet adjacent to the base metal sheet to form an adjacently disposed base bond sheet; and~~

~~inductively heating the adjacently disposed base bond sheet by passing the base bond sheet through one or more induction coils to form a bonded sheet.~~

~~pressing together opposing surfaces of the bond metal sheet and the base metal sheet; and~~

~~inductively heating the pressed bond metal and base metal sheets to a temperature sufficient to bond the bond metal sheet directly to the base metal sheet.~~

18. (canceled)

19. (currently amended): A method of forming one or more bonded products, the method comprising the steps of:

~~placing a bond metal sheet adjacent to a base metal sheet comprising a substantially electrically conductive composition to form an adjacently disposed base bond sheet;~~

~~pressing directly together opposing surfaces of a bond metal sheet and an electrically conductive base metal sheet without an intervening bonding material;~~

~~inductively heating the base metal sheet by passing the adjacently disposed base bond sheet pressed bond metal and base metal sheets through one or more induction coils;~~

~~melting the bond metal sheet from the heat of the inductively heated base metal sheet to bond the bond metal sheet to the base metal sheet to form a bonded base-bond sheet; and~~

~~cutting the one or more bonded products from the bonded base-bond sheet.~~

20. (previously presented): An induction bonding apparatus for bonding a first bond sheet substantially comprising a first bonding material to a first base sheet of a first base

material and for bonding a second bond sheet substantially comprising a second bonding material to a second base sheet of a second base material, the apparatus comprising:

 a means for bringing the first base sheet adjacent to the first bond sheet to form a first adjacently disposed base-bond sheet;

 a means for bringing the second base sheet adjacent to the second bond sheet to form a second adjacently disposed base-bond sheet;

 a means for bringing the first bond sheet of the first adjacently disposed base-bond sheet adjacent to the second bond sheet of the second adjacently disposed base-bond sheet to form a back-to-back layered sheeting arrangement; and

 one or more induction coils through which the back-to-back layered sheeting arrangement passes to inductively heat at least the first and second base sheets to bond the first bond sheet to the first base sheet and form a first bonded sheet, and to bond the second bond sheet to the second base sheet to form a second bonded sheet.

21. (previously presented): The induction bonding apparatus of claim 20 further comprising a means for cutting one or more bonded products from the first and second bonded sheets.

22. (previously presented): The induction bonding apparatus of claim 20 wherein the first and second base sheets each comprise a substantially electrically conductive composition and the first and second bond sheets each comprise a substantially non-electrically conductive composition whereby the first and second base sheets are inductively heated and the adjacent first and second bond sheets are melted by the inductively heated first and second base sheets to form the first and second bonded sheets.

23. (previously presented): The induction bonding apparatus of claim 22 wherein a sheet of heat resistant material is inserted between the adjacently disposed first and second bond sheets.

24. (previously presented): A method of bonding a first bond sheet substantially comprising a first bonding material to a first base sheet comprising a first base material and a second bond sheet substantially comprising a second bonding material to a second base sheet comprising a second base material, the method comprising the steps of:

placing the first bond sheet adjacent to the first base sheet to form a first adjacently disposed base-bond sheet;

placing the second bond sheet adjacent to the second base sheet to a second adjacently disposed base-bond sheet;

placing the first bond sheet of the first adjacently disposed base-bond sheet adjacent to the second bond sheet of the second adjacently disposed base-bond sheet to form a back-to-back layered sheeting arrangement; and

inductively heating the back-to-back layered sheeting arrangement by passing the back-to-back layered sheeting arrangement through one or more induction coils to form a first bonded sheet comprising the first bond sheet bonded to the first base sheet and a second bonded sheet comprising the second bond sheet bonded to the second base sheet.

25. (previously presented): The method of claim 24 further comprising the step of inserting a sheet of heat resistant material between the adjacently disposed first and second bond sheets prior to the step of inductively heating.

26. (previously presented): The method of claim 24 further comprising the step of forming the first and second bonding materials from substantially non-electrically conductive materials and forming the first and second base materials from substantially non-electrically conductive materials whereby the first and second base sheets are inductively heated and the adjacent first and second bond sheets are melted by the inductively heated first and second base sheets to form the first and second bonded sheets.

27. (previously presented) The method of claim 26 further comprising the step of inserting a sheet of heat resistant material between the adjacently disposed first and second bond sheets prior to the step of inductively heating.

28. (previously presented): A method of forming one or more bonded products, the method comprising the steps of:

placing a first bond sheet comprising a substantially non-electrically conductive composition adjacent to a first base sheet comprising a substantially electrically conductive composition to form a first adjacently disposed base-bond sheet;

placing a second bond sheet comprising a substantially non-electrically

conductive composition adjacent to a second base sheet comprising a substantially electrically conductive composition to form a second adjacently disposed base-bond sheet;

placing the first bond sheet of the first adjacently disposed base-bond sheet adjacent to the second bond sheet of the second adjacently disposed base-bond sheet to form a back-to-back layered sheeting arrangement;

inductively heating the first and second base sheets by passing the back-to-back layered sheeting arrangement through one or more induction coils;

melting the first and second bond material sheets from the heat of the inductively heated first and second base material sheets to form a first bonded sheet comprising the first bond sheet bonded to the first base sheet and a second bonded sheet comprising the second bond sheet bonded to the second base sheet; and

cutting the one or more bonded products from the first and second bonded sheets.

29. (previously presented): The method of claim 28 wherein a sheet of heat resistant material is inserted between the adjacently disposed first and second bond sheets.